

IN THE CLAIMS:

Please amend claims 1-12 and add claims 13-18 as follows.

1. (Currently Amended) A method for fast recovery of a host connection in a redundant tree structured local area network, ~~characterised in that the method comprising~~comprises the steps of:

monitoring the state of a critical up-link;; and

setting a dependent down-link in a link-down state, if said critical up-link is detected to be in a the link-down state;;

~~monitoring the state of a active up-link in the host device, and~~

~~starting a recovery process in a host device if said active link is in the link down state.~~

2. (Currently Amended) The method according to claim 1, ~~characterised in that~~further comprising specifying the up-link of a network element ~~being as~~ as a critical up-link, if the failure of said link affects the data flow of a down-link of said network element.

3. (Currently Amended) The method according to claim 1, ~~characterised in that~~further comprising specifying the link of a network element ~~being as~~ as a dependent down-link, if there is a critical up-link between said down-link and a next network element.

4. (Currently Amended) The method according to claim 1, wherein the monitoring of the state of a critical up-link is accomplished by monitoring the quality of the data flow on the link,~~characterised in that the recovery process comprises the steps of:~~

~~notifying the host software of the link failure in the active up-link, and
changing the active data path to the redundant up-link.~~

5. (Currently Amended) A method for fast recovery of a host connection in a redundant tree structured local area network, the method comprising:

monitoring the state of an active up-link in a host device, and
starting a recovery process in the host device if said active link is in a link-down state.

~~The method according to claim 1, characterised in that the recovery process comprises the steps of:~~

~~notifying the host software of the link failure in the active up-link,
checking the status of the redundant up-link, and if said up-link is in link down state,
transferring said host to the predetermined default mode operation.~~

6. (Currently Amended) The method according to claim 45, wherein the recovery process comprises: ~~characterised in~~

notifying host software of a link failure in the active up-link; and

changing an active data path to a redundant up-link.

~~that said redundant up-link is a doubling up-link for said active up-link.~~

7. (Currently Amended) The method according to claim ~~4~~5, wherein the recovery process comprises:

notifying host software of a link failure in the active up-link;

checking the status of a redundant up-link, and if said up-link is in the link down state; and

transferring said host to a predetermined default mode operation.

~~characterised in that monitoring the state of a critical up-link is accomplished by monitoring the quality of the data flow on the link.~~

8. (Currently Amended) The method of claim 6, wherein the redundant up-link is a doubling up-link for the active up-link.

~~A system for fast recovering of a host connection in a redundant tree structured local area network, characterised in that the system comprises~~

~~a monitoring device (EC) for monitoring the state of a critical up-link, for setting a dependent down-link in a link down state, if said critical up-link is detected to be in a~~

~~link-down state and for starting a recovery process in a host device if said active link is in the link-down state.~~

9. (Currently Amended) A apparatus for fast recovering of a host connection in a redundant tree structured local area network, the apparatus comprises:

a monitoring device configured to monitor the state of a critical up-link, and to set a dependent down-link in a link-down state, if said critical up-link is detected to be in the link-down state ~~The system according to claim 8, characterised in that said monitoring device (EC) further comprises~~

~~a physical layer device (PHY) for monitoring the physical state of said up-link, and~~

~~a media access controller (MAC) for changing the state of the down-link.~~

10. (Currently Amended) The system apparatus according to claim 98, wherein the controller further comprises~~characterised in~~

a physical layer unit configured to monitor the physical state of said up-link, and

a media access controller configured to change the state of the down-link.

~~that the up-link of a network element (SW1, ..., SW8) is a critical up-link, if the failure of said link affects the data flow of a down-link of said network element.~~

11. (Currently Amended) The ~~system~~apparatus according to claim 89, ~~characterised in that~~wherein the up-link of the apparatus a network element (SW1, ..., SW8) is a dependent down-link, if there is a critical up-link, if the failure of said link affects the data flow of a down-link of said apparatus. between said down-link and the next network element (SW1, ..., SW8).

12. (Currently Amended) The ~~system~~apparatus according to claim 89, ~~characterised in that~~wherein link of the apparatus is a dependent down-link, if there is a critical up-link between said down-link and a next network element said monitoring device (EC) is an Ethernet controller.

13. (New) The apparatus according to claim 9, wherein said controller comprising an Ethernet controller.

14. (New) A host device in a redundant tree structured local area network, the host device comprising:

a controller configured to monitor the state of an active up-link, and to start a recovery process if said active link is in a link-down state.

15. (New) The host device according to claims 14, wherein said monitoring device comprising an Ethernet controller.

16. (New) An apparatus, comprising:

monitoring means for monitoring the state of a critical up-link, for setting a dependent down-link in a link-down state, if said critical up-link is detected to be in a link-down state.

17. (New) A host device, comprising:

monitoring means for monitoring the state of an active up-link and for starting a recovery process if said active link is in the link-down state.

18. (New) A system for fast recovery of a host connection in a redundant tree structured local area network, the system comprising:

at least one apparatus comprising a controller configured to monitor the state of a critical up-link, and to set a dependent down-link in a link-down state, if the critical up-link is detected to be in a link-down state;

at least one host device comprising a controller configured to monitor the state of an active up-link, and to start a recovery process if said active link is in a link-down state.